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(56) Documents cited  
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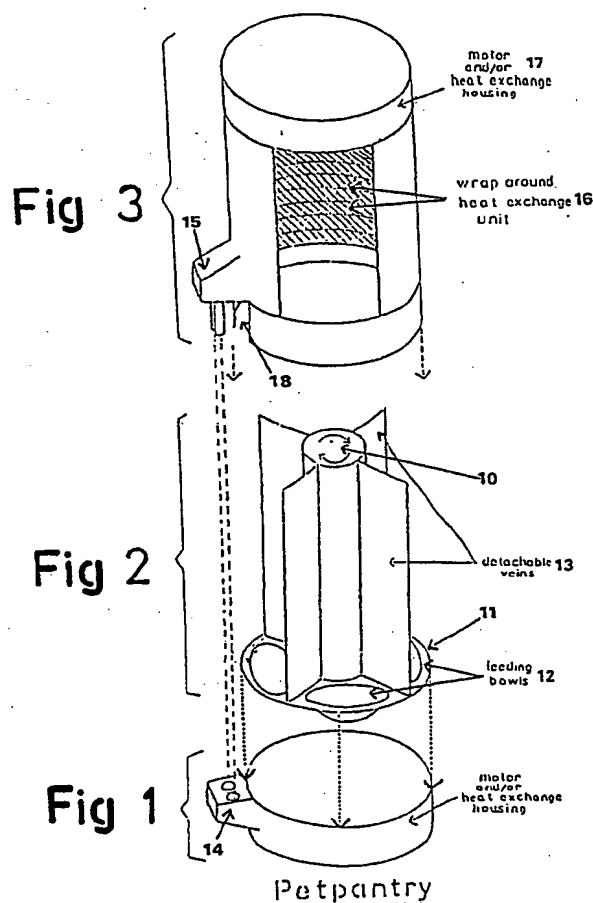
(58) Field of search  
A1M

## (54) Timed feeder for pets

(57) A timed petfood dispenser has a motor situated in its base (Figure 1), that drives a central core and circular base (10 and 11, Figure 2). The circular base has sunken feeding bowls (12) that are separated by dividing vanes (13) that are detachable as required.

The motor rotates the central core, base, and feeding bowls in quarterly segments and at predetermined times.

A cover (Figure 3) is placed over the central core and base unit and has one segment exposed, which allows the pet access to only one feeding bowl at a time. The interior of the cover is lined with a heat exchange unit that will cool the unexposed segments. The Housing for the heat exchange motor (17) is at the top of the cover (Figure 3). Electrical connections (14, 15) are provided.



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Fig 3

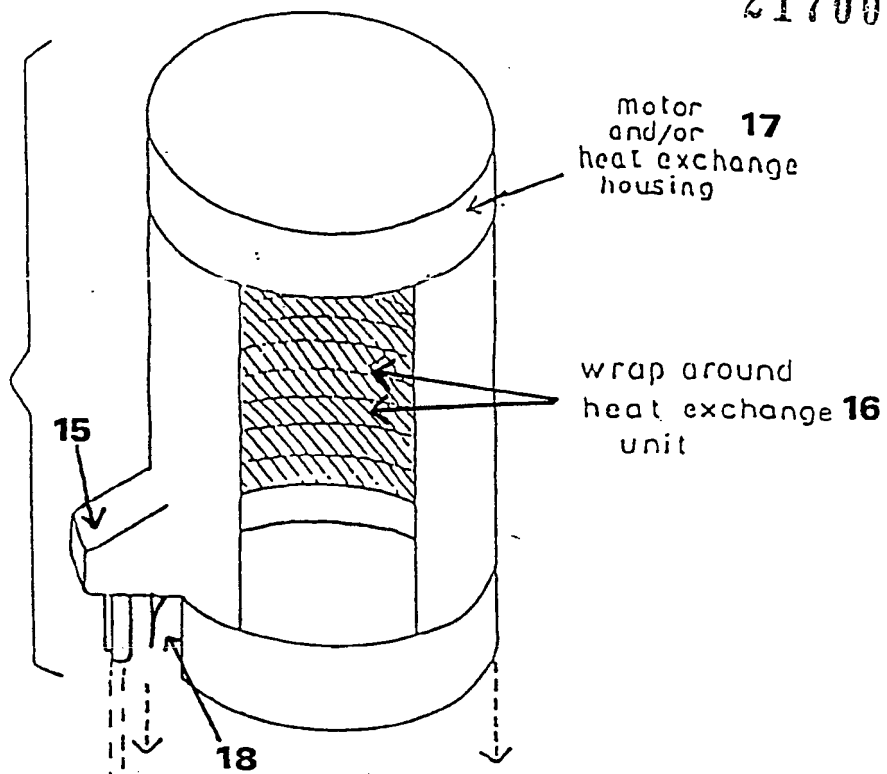


Fig 2

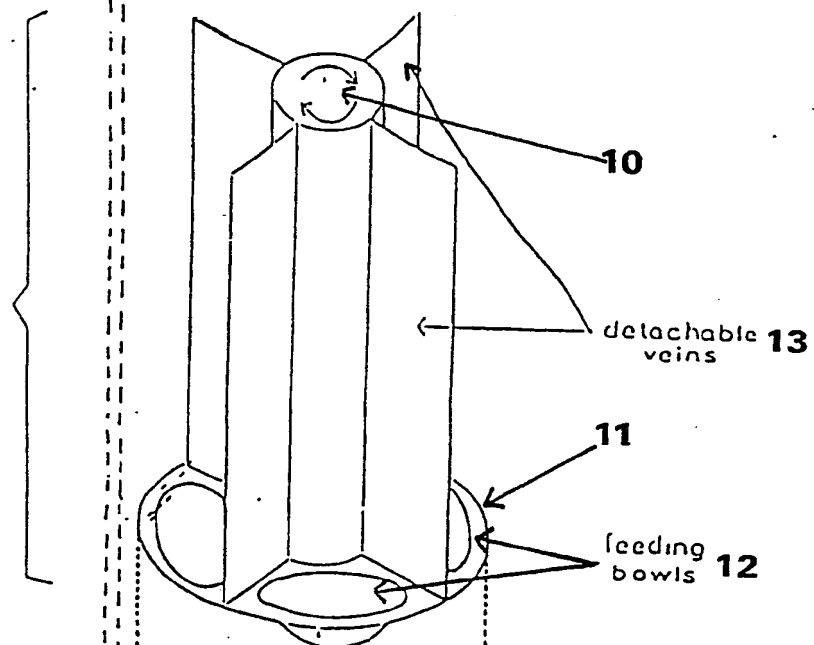
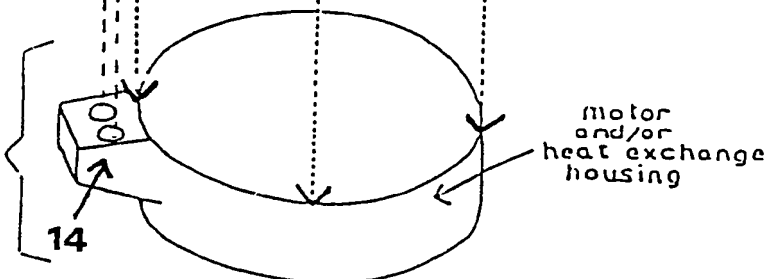


Fig 1



Petpantry

## SPECIFICATION

## Petpantry

5 This invention relates to a refrigerated pet food dispenser controlled by a time switch and described as a "Petpantry".

Family pets so often have to be left either overnight or for weekends, and need to be fed. The problem is to deliver the correct amount of food and at the right time. Absence by the owner for more than a day or so, particularly in hotter weather, could lead to food "going off". The Petpantry provides the correct amount of food for the pet, at the right pre-determined time through the only segment of the petpantry that is uncovered. The food that is "hidden" in the covered segments is prevented from "going off" by a heat exchange unit that cools the food waiting to be provided.

20 The Petpantry is a time-lapsed food dispenser consisting of a "time controlled" motor situated in the base that controls a vertical column to which are attached veins that "hide" the non-required compartments from the pet. The pet has only access to one presented compartment at a time which delivers food on a predetermined basis. A removeable cover with a one quarter access segment only, covers the central column, veins, base unit and food. Attached to this cover on the inside is a heat-exchange unit that is driven by a motor, housed in a separate compartment at the top of the removeable cover.

A specific embodiment of the invention will now be described by way of example with reference to

35 the accompanying drawing in which:-

*Figure 1* shows the base unit.

*Figure 2* illustrates the central core with veins and feeding bowls.

*Figure 3* shows the outer casing to the Petpantry to which is attached the heat exchange unit.

*Figure 2* shows, the central core unit 10 to which is attached a circular base 11 in which are situated four sunken feeding bowls 12 into which food or the like can be placed. Separating these food

45 bowls are four veins 13 that are attached to the central vertical core 10 of the unit.

*Figure 1* illustrates the lower motor or heat exchange housing to which is attached an electrical "female" housing 14 for *Figure 3*. There is a mains electrical supply to this unit.

*Figure 3* is a removeable hood that has an open one quarter segment. This hood is sized to fit over and totally cover *Figures 1* and *2* and is fitted with a male electrical connection 15 to connect with the female 14 in *Figure 1*. Fitted to the inside of the cover is a heat exchange unit 16 that will cool only the unexposed segments of *Figure 2* as *Figure 3* remains static during the timed process of food delivery. The electrical connection 15 also serves as a useful positioning device for the whole Petpantry unit. A cut away section 18 is situated below the electrical housing 15 in order to allow a flush fitting with the female housing 14 in *Figure 1*.

The top section of *Figure 3* is a housing 17 in which is situated the motor and accessories for the

heat exchange unit. This housing 17 is covered by a simple detachable lid (not shown) to allow access to the heat exchange motor.

*Figure 1* forms the base unit into which an electrical lead provides a mains source to drive the motor for the central core 10. This motor is fixed into the base unit and is attached to the central core 10 by either a driven vertical spline from the motor that runs upwards into the central core. Or by a gear on the bottom of the central core 10 that fits into a gear on the motor. This motor is controlled by a "time switching" device that can be set as desired, and that will turn the motor (and therefore the central core 10) through one quarter of a revolution, thereby exposing a new feeding bowl 12 to the cut away segment in *Figure 3*. The circular base 11 fits into but does not touch the sides of *Figure 1*, therefore allowing full freedom of revolution. It is also removeable from the base unit and motor to allow the bowls 12 to be washed. The connection 14 provides an electrical contact to drive the heat exchange motor housed in *Figure 3*.

The setting up process is as follows:-

The food is placed in the feeding bowls 12.

90 The time switch is set as desired.

The mains electrical supply is switched on.

*Figure 3* is placed over both *Figure 2* and *Figure 1* such that the male connection 15 fits into the female connection 14.

95 This positions the open segment of *Figure 3* over the first feeding bowl 12.

The heat exchange unit cools the unexposed segments so keeping them fresh until delivered in turn to the open segment.

100 At the predetermined time the central core 10 will rotate through one quarter of a revolution and expose a fresh feeding bowl 12 to the open segment of *Figure 3*.

105 This process will be repeated as required until all four feeding bowls 12 have been exposed to the pet, or the system is switched off.

## CLAIMS

110 1. A Petpantry in which the circular base 11 consists of a sunken full circular trough in place of the feeding bowls 12 shown in *Figure 2*.

115 2. A Petpantry as claimed in Claim 1 in which the central core 10 contains a number of vertically placed attachment points to allow the veins 13 to be placed as required and the number of segments increased by the introduction of further detachable veins.

120 3. A Petpantry as claimed in any preceding claim, wherein a circular stand with splayed legs and a lip is placed under the base unit *Figure 1* in order to hold any condensation from the heat exchange unit 16, and to provide a stronger friction against the floor surface to prevent the Petpantry slipping while in use.

125 4. A Petpantry as claimed in any preceding claim, wherein the heat exchange unit 16 is not present.

130 5. A Petpantry as claimed in any preceding claim, wherein any alternative method of driven

gearing connection to the central core 10 from the motor housed in Figure 1 other than that already described in previous claims is employed.

6. A Petpantry as claimed in any preceding claim, wherein any alternative cooling or heat exchange method is used to cool the feeding bowls 12.

7. A Petpantry as claimed in any preceding claim, wherein the size of the exposed segment in Figure 2 may be varied.

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